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CLAIMS

**Related Pending Application**

Related Case Serial No: 09/857,201

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1. A method for adjusting a weather vane (1) in which

5 -- the weather vane is placed, on site, in a site setting rig (16), and

10 - the position of an orientation sensor (3) that senses the orientation of the weather vane with respect to a probe body (5) of the weather vane and with respect to a vane of the weather vane is mechanically adjusted, characterized in that:

- at the factory, the respective positions of the orientation sensor and of the probe body are fixed in a reference relationship,

15 - the probe body is placed on a first factory setting rig (16),

20 - the vane is kept in a sustained position which is mechanically known with respect to the first factory setting rig, and a first signal (6) delivered by the orientation sensor for this vane position is measured,

25 - the weather vane, maintaining the same reference relationship, is subjected to a wind (29), obtained by a wind tunnel, of known direction with respect to the first setting rig, and a second signal delivered by the orientation sensor for a vane position corresponding to this wind of known direction is measured,

30 - on site, the probe body is placed on a site setting rig identical to the first factory setting rig, the vane is put back in the same sustained position with respect to the site setting rig, and a third signal delivered by the orientation sensor for this sustained vane position is measured

35 - the position of the orientation sensor is mechanically adjusted so that the third signal is equal to a difference between the first and second signals.

2. A method for adjusting a weather vane in which:

- the weather vane is placed, on site, in a site setting rig (16), and

- the position of an orientation sensor (3) that senses the orientation of the weather vane with respect to a probe body (5) of the weather vane and with respect to a vane of the weather vane is mechanically adjusted, characterized in that:

- at the factory, the respective positions of the orientation sensor and of the probe body are fixed in a reference relationship,

- the probe body is placed on a first factory setting rig (16),

- the vane is kept in a sustained position which is mechanically known with respect to the first factory setting rig, and a first angular signal (6) delivered by the orientation sensor for this vane position is measured,

- the weather vane, maintaining the same reference relationship, is subjected to a wind (29), obtained by a wind tunnel, of known direction with respect to the first setting rig, and a second angular signal delivered by the orientation sensor for a vane position corresponding to this wind of known direction is measured,

- on site, the probe body is placed on a site setting rig identical to the first factory setting rig, the vane is put back in the same sustained position with respect to the site setting rig, and the orientation sensor is offset with respect to the probe body so that an offset angle of a reference (9) of the orientation sensor with respect to a reference (11) of the probe body is equal to the difference between the two angular signals.

3. The method as claimed in either of claims 1 and 2, characterized in that, in order to place the vane in the sustained position that is mechanically known with respect to the factory setting rig, a vane of the weather vane is pressed against an arm (23) of the factory setting rig.

4. The method as claimed in one of claims 1 to 3, characterized in that the difference between the first and second signals is marked on the weather vane, preferably on the vane.

5 5. The method as claimed in one of claims 1 to 4, characterized in that a wind of known direction corresponding to a main orientation of a moving part on which the weather vane is mounted is chosen in the wind tunnel.

10 6. The method as claimed in one of claims 1 to 5, characterized in that

- a known force is applied to the vane, using the site or factory setting rig, the resultant of this known force being orthogonal to an axis of rotation of  
15 the vane.

7. A device for adjusting a weather vane (1) for measuring the direction of the wind, this weather vane comprising a wind-sensitive vane, secured to a shaft (7) supporting an indicator (20) pointing to an  
20 orientation sensor (19) mounted on a sensor support plate (4), and a probe body (5), this plate being orientable with respect to the probe body, characterized in that it comprises, for each weather vane, a label for adjusting the plate with respect to  
25 the probe body and with respect to the vane once the weather vane is mounted in a setting rig.

8. The device as claimed in claim 7, characterized in that an indication from the label is engraved on the vane.

30 9. The device as claimed in either of claims 7 and 8, characterized in that it comprises a factory setting rig and a site setting rig, this site setting rig being an identical image of the factory setting rig.

35 10. A weather vane for measuring wind direction, comprising a wind-sensitive vane secured to a rotary shaft and driving a measurement member which comprises a set of sensors, each sensor rotating about an axis parallel to the rotary shaft, characterized in that the

axes (37, 38) of the sensors are situated in a plane passing through a leading edge (39) of the vane and the rotation shaft of the vane for a main position of the weather vane.

5        11. The weather vane as claimed in claim 10, characterized in that the main position is oriented according to a wind corresponding to stall.

10       12. The weather vane as claimed in claim 10, characterized in that the main position is oriented according to a wind corresponding to a cruising direction.